

MINUTES
LABORATORY AND CHEMICAL SAFETY COMMITTEE
Wednesday, January 27, 2010 (2101G McGavran-Greenberg)

Members Present: Lorraine Alexander, Pat Boone, Bruna Brylawski, Catherine Brennan, Kimberlie Burns, Rita Fuchs-Lokensgard, James Gilbert, Mary Beth Koza, Kirby Zeman

Others Present: Jonathan Moore

Members Absent: Howard Fried, Katherine Hamil, Holly Hong, Jeffery Johnson, Rihe Liu, Susan McMahan

Meeting commenced at 3:05 pm.

Collaborative Laboratory Inspection Program (CLIP) – 2009 Summary

Jonathan Moore gave an overview of the CLIP program during 2009. Numbers from 2009 include 513 CLIP inspections with 264 BSL2 labs inspected. The top twenty variances for 2009 were also presented with the top five listed below:

- Lab Safety Plan not updated
- Infectious waste not handled properly
- Annual Blood Borne Pathogens training not completed
- Documentation of annual training of the contents of the Lab Safety Plan not available
- Handling of needles

Examples of CLIP continuous improvement were also shown and included revision of citations, lab assessment grade, and incorporation of Hazardous Waste Management refresher training. A question from Burns asked why inspectors did not always introduce themselves upon entering the laboratory. Brennan and Moore explained that this was standard procedure for CLIP inspectors but would be emphasized to inspectors in the future.

Upcoming Hazardous Waste Inspection

Brennan distributed copies of a letter the university received from the North Carolina Division of Environment and Natural Resources (NCDENR) in November of 2009. A visit from NCDENR in early 2010 is expected and items were discussed in preparation for this visit. Brylawski asked a question regarding how UNC Chapel Hill compares to other institutions in the area of hazardous waste compliance. Koza replied that a future training with all UNC System schools is being planned in regards to this topic so that best practices can be shared. Several committee members gave suggestions on how to further compliance on campus including: individual training for departments, informational emails to department chairs emphasizing potential fines and informing PI's on how compliance issue can affect their research.

Injuries and Incidents, October-December 2009

The Committee reviewed the log of injuries and incidents for the 4th Quarter 2009.

INJURY
Postdoc was collecting water samples from creek on private property. As employee was returning to vehicle through the homeowner's yard, three loose dogs surrounded employee and one of them bit employee's right thigh.
Research Technician euthanizing mice observed mice fighting in cage before starting procedure. As the employee was handling one of the mice it bit him on the thumb of right hand.
Research Technician was attempting IP injection of mouse while holding it by the skin on the back of the neck. Mouse was able to get free enough to bite thumb on left hand.
Employee working in Biological Safety Level 3 lab was bitten on left hand by mouse. Bite punctured outer glove but not inner glove.
Laboratory Technician was helping hold rat. Rat bit employee on finger of left hand. Wound washed in lab and employee sent to UEHC for follow-up. Received prescription for antibiotic.
Employee was aspirating smooth human aortic muscle cells using a 1-mL syringe and accidentally stuck 2nd finger of left hand near the nail bed.
At 10:30 pm, at the completion of the experiment, test chamber was being purged with outside air using a blower. As power cord for blower was being plugged into extension cord, there was a series of sparks. The cords were dropped and the sparks continued then cords caught fire. Employee went to Campus Health for follow-up complaining of tingling and swelling in right arm from fingertips to shoulder

<p>Research Associate was adding a spatula full of lithium aluminum hydride (LAH) to reaction when noise caused from delivery person dropping box of dry ice surprised employee. The employee inadvertently placed a small amount of solid LAH on gloved hand while talking to delivery person. LAH is highly water reactive and upon prolonged exposure to air will burn. When employee realized material was on fire the employee patted out the flames. Employee sprayed affected area with burn spray. The employee went to UEOHC and was given TDAP and ibuprofen and referred to UNC Burn Clinic. The burn clinic prescribed anti-bacterial creams.</p>
<p>Laboratory Technician was cleaning up chemical spill under flammable solvent cabinet. Cabinet dropped onto left index finger resulting in laceration. Went to emergency room and X-rays were negative. Sutures applied and splint given. Employee counseled on wound care and released.</p>
<p>Graduate student was helping move stacked incubators down hallway when incubators started to fall. Student suffered bruised right thigh and lacerated liver.</p>
<p>Graduate student broke open glass ampoule of osmium tetroxide in lab hood and cut finger on the opening. Employee wore nitrile gloves.</p>
<p>Power outage on campus caused air handling system for Biological Safety Level 3 laboratory to shut down. The air handling system did not reset when power was restored. Five employees were evaluated by the UEOHC medical director and one employee was prescribed prophylaxis.</p>
<p>Employee was preparing sterile needles in Biological Safety Level-3 laboratory to pin down mice for dissection. Employee stuck self with needle while unsheathing it. No virus was present in room at time.</p>
<p>Graduate student punctured 3rd finger of left hand containing residual amount of chemical reagent (Sparteine) after injecting it into reaction vessel. Originally seen at Emergency Department and received tetanus booster.</p>
<p>Research Assistant Professor was preparing mice for dissection. Employee stuck needle used to affix mice into left thumb.</p>
<p>Research technician was removing the cap on a new, clean needle but cap was stuck. When cap was removed employee stuck finger with needle.</p>
<p>While injecting mouse with mouse cells, employee was flicking needle and accidentally punctured finger with needle.</p>
<p>Employee complaining of neck and upper back pain had work space and work practices evaluated by UNC Ergonomist. Employee spends a lot of time at computer and at microscope. Matter has been referred to Workers' Comp third-party administrator for follow-up.</p>

For incidents, there were 4 chemical spills, 2 laboratory hoods, 2 mercury spills, 2 requests for investigations, 1 fire alarm, 1 natural gas leak, 1 odor, 1 blood spill, 1 miscellaneous and 1 environment water quality.

Other Committee Business

Brennan sent an article to committee members prior to the meeting on Chemical Safety Board investigation of academic lab accidents. While discussing the article, Burns raised the issue of Standard Operating Procedures (SOPs) and whether these should be more widely implemented in campus labs. On another topic the committee discussed the use of puncture resistant gloves (such as HexArmor) to prevent future needle sticks and animal bites. Brylawski raised a question regarding ordering of sharps containers and EHS will follow up with Fisher Scientific to resolve the issue.

Meeting adjourned at 4:00 pm.